DOCUMENT RESUME

ED 262 309 CG 018 544

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TITLE Test Item Disguise and the Structured Assessment of Clinical Psychopathology.
SPONS AGENCY Ontario Ministry of Health, Toronto.; Queen's Univ., Kingston (Ontario).
PUB DATE Aug 85
NOTE 13p.; Paper presented at the Annual Convention of the American Psychological Association (93rd, Los Angeles, CA, August 23-27, 1985).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adults; *Evaluation Methods; *Psychopathology; *Test Construction; *Test Items; *Test Validity
IDENTIFIERS *Test Item Disguise

ABSTRACT

Modern test construction strategies in the areas of personality and psychopathology differ in the use of disguise within test stimulus material. Previous research on the validity of using disguised test item content has favored the rational strategy of test construction which views disguise as a liability under normal test-taking circumstances. The utility of disguised test item content for the assessment of psychopathology with a psychiatric inpatient population was explored in a group of 352 adult psychiatric inpatients. All subjects completed the Basic Personality Inventory, a 12-scale, 240-item, structured, self-report instrument of abnormal behavior. Test item disguise was differentiated into components of face validity (the contextual relevance of a test item) and item subtlety (lack of an obvious, substantive link between a test item and its underlying dimension). The results indicated that the more empirically valid test items had greater face validity and less item subtlety. These findings suggest that the most valid results may be obtained through the use of direct questions, supporting the efficacy of a rational approach to constructing self-report instruments for assessing psychopathology. (NRB)

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ED262309

Test Item Disguise and the Structured Assessment of Clinical Psychopathology

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Presented at the 93rd American Psychological Association Annual Convention, Los Angeles, August, 1985.

This work was supported in part by the Health Research Personnel Program of the Ontario Ministry of Health and by a Queen's University Advisory Research Committee Grant.

CG 018544

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Test Item Disguise and the Structured Assessment of Clinical Psychopathology

Summary

Statement of Problem

The formal structured assessment of personality and psychopathology has seen the emergence of many radically different, modern test construction strategies. Chief among these strategies have been the rational, projective, empirical, and construct approaches. These test construction strategies have differed from one another in a variety of ways, one of which is in the use or necessity of disguise within test stimulus material (see Table 1).

The rational strategy of test construction views disguise as a liability under normal test-taking circumstances and has no comment as to the utility of disguise where faking may be present. The projective strategy argues the merits of disguise for all test-taking situations. An empirical test construction strategy states that although disguise may be a virtue in circumstances where faking is present, it is irrelevant when test respondents answer honestly. Finally, the construct approach to test construction does not directly comment on the utility of disguise for any circumstances.

Previous research on the validity of using disguised test item content, although favoring the rational strategy of test construction, has used nonclinical subjects (e.g., Gynther & Burkhart, 1983; Holden & Jackson, in press), or measures of disguise derived from informed judgments

(e.g., Duff, 1965; Goldberg & Slovic, 1967) rather than measures based on inferences of relatively naive test respondents. The current research was designed to explore the utility of disguised test item content for the assessment of psychopathology with a psychiatric inpatient population.

For the present study, measures of disguise were based on the unbiased judgments of relatively naive individuals, namely, undergraduate student volunteers. Following Holden and Jackson (1979, in press), disguise was differentiated into general and specific test item characteristics associated with relatively naive test respondents. The face validity of a test item was defined as the degree to which the item appeared contextually relevant to any implicitly hypothesized behavioral scale, as judged by the test respondent. Consider the items, "I like to eat apples" and "I am depressed all the time" given on a test to a new inpatient in a psychiatric hospital. In that particular setting, the former item may seem less situationally relevant (i.e., less face valid) whereas the latter item may seem much more contextually appropriate (i.e., more face valid). Distinct from this, item subtlety referred to the degree to which there exists a lack of an obvious, substantive link between a test item and its actual underlying construct, again judged in terms of the test respondent. Consider, for example, the item, "I would enjoy the occupation of butcher". By itself the nature of the item's underlying construct may be rather obscure; however, given a theoretical definition of the dimension of sadism, the item's substantive link may become quite apparent. Through this investigation, it was hoped that an optimal strategy of test construction might emerge allowing for the development of more valid structured, clinical instruments for the assessment of psychopathology.

Method

Subjects

Subjects consisted of 352 adult psychiatric inpatients (205 males, 147 females). This sample had a mean age of 32.5 years and had an average of 10.6 years of education.

Materials

The primary instrument in this study was the Basic Personality Inventory (BPI, Jackson, 1976). The BPI is a 12-scale, 240-item, construct-oriented test assessing relatively independent components of psychopathology similar to those underlying the traditional clinical scales of the Minnesota Multiphasic Personality Inventory (see Table 2). BPI scales assess measures of neurotic tendencies with scales of Hypochondriasis, Depression, Anxiety, Social Introversion, and Self Depreciation, dimensions of psychoticism using scales of Persecutory Ideas, and Thinking Disorder, and aspects of sociopathic behavior with scales of Denial, Interpersonal Problems, Alienation, and Impulse Expression (Holden, Reddon, Jackson, & Helmes, 1983). A criterion measure for the BPI items was based upon independent clinical ratings of patient symptomatology: hallucinations, delusions, mania, depression, anxiety, somatic complaints, insomnia, anorexia, assaultive behaviour, alcoholism, non-medical drug use, and suicidal behavior and/or ideations. Ratings across symptoms were summed for each patient to yield an overall symptom criterion score.

Procedure

Subjects completed the BPI under normal instructional conditions as part of the regular testing procedure of the hospital in which they were inpatients. Symptom data were collected from each patient's case file

after that patient had been discharged from the hospital. Symptoms were based on admission and discharge summaries, social work assessment reports, and psychological assessment reports. Ratings for each symptom were coded dichotomously, either present or absent. It should be noted that all case file information and subsequent symptom ratings were made blind with respect to BPI test results, thus avoiding problems of criterion contamination.

Method of Analysis

Individual BPI test item validities were computed by correlating item responses with overall symptom criterion scores. Item validities were then normalized using the Fisher r to z transformation and correlated with previously obtained (Holden & Jackson, in press) BPI item scores of face validity and item subtlety.

Results

Table 3 reports descriptive statistics for the BPI as well as frequency of occurence of reported symptomatology. Mean number of reported symptoms per patient was 3.22 (SD = 1.35). Table 4 presents the relationships between BPI item criterion validities and the two measures of disguise: face validity and item subtlety. Correlations are presented for items within BPI scales as well as for all items. Although subject to a certain amount of scale variability, in general, more valid test items tended to have greater face validity ($r(218) = .33$, $p < .01$) and less item subtlety ($r(218) = -.30$, $p < .01$)>

Discussion

The present study has sought to employ a unique approach for evaluating the utility of test item disguise in the structured assessment of clinical

psychopathology. First, test item disguise measures (i.e., face validity and item subtlety) were assessed in a manner consistent with the typical assessment situation in which relatively naive test respondents are not advised as to the particular behavioral dimensions being evaluated. Second, test item validities were based upon the responses of psychiatric patients, not an analogue sample. Furthermore, these item validities were derived from criterion scores based on independent clinical ratings. These ratings represented independent, objective, clinical evaluations of patients' behaviors and were not contaminated by BPI test score results.

Data support the efficacy of a rational approach to constructing self-report instruments for assessing psychopathology (see Table 1). In general, under normal test-taking conditions, disguise is not an asset in the measurement of the abnormal behavior of psychiatric patients. Greater face validity and less item subtlety are both correlated empirically with greater item criterion validity. These relationships favor a rational approach to scale development and do not support projective and empirical strategies of test construction. Although there may be other circumstances where disguise may yet prove to be advantageous (e.g., for particular diagnostic groups), current research suggests that the most valid results may be obtained through the use of direct questions. The burden of proof has shifted to those who would advocate the use of disguise in the structured assessment of clinical psychopathology.

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Test Construction Strategies and Disguise

	Test-Taking Circumstances	
	Normal	Deliberate Faking
Strategy		
Rational	Disguise is a liability.	No comment.
Projective	Disguise is an asset.	Disguise is an asset.
Empirical	Disguise is irrelevant.	Disguise is an asset.
Construct	No comment.	No comment.

Table 2

BASIC PERSONALITY INVENTORY

SCALE DESCRIPTIONS

SCALE	LOW SCORER	HIGH SCORER
Hypochondriasis	Is without excessive bodily concern or preoccupation with physical complaints. Absenteeism due to ill health likely to be below average.	Frequently thinks he is sick. Complains regularly of peculiar pains or bodily dysfunctions. Discusses such topics, frequently revealing a preoccupation with his complaints.
Depression	Reports a usual feeling of confidence, cheerfulness, and persistence, even when experiencing disappointment. Has an optimistic attitude about his future.	Inclines to be down-hearted and show extreme despondency; considers himself to be inadequate; may be listless, remote and preoccupied; looks at his future pessimistically.
Denial	Accepts his feelings as part of himself; not afraid to discuss unpleasant topics. Can answer questions about himself frankly; avoids impression management. Shows normal affect.	Lacks insight into his feelings and the causes of his behavior. Avoids unpleasant, exciting or violent topics. Relatively unresponsive emotionally.
Interpersonal Problems	Experiences less than average irritation from noise, changes in routine, disappointment and mistakes of others; respects authority and prefers clearly defined rules and regulations; cooperates fully with leadership and readily accepts criticism from others.	Is often extremely annoyed by little inconveniences, frustrations or disappointments; will frequently be uncooperative, disobedient, and resistant when faced with rules and regulations; reacts against discipline and criticism.
Alienation	Ordinarily displays ethical and socially responsible attitudes and behavior; reports a sense of obligation toward society and its laws.	Expresses attitudes markedly different from common social codes; is prone to depart from the truth and behave in an unethical and untrustworthy manner; feels little or no guilt.
Persecutory Ideas	Trusts others and doesn't feel threatened. Accepts responsibility for the events in his life and doesn't attribute maliciousness to others.	Believes that certain people are against him and are trying to make his life difficult and unpleasant. Inclined to brood.

SCALE	LOW SCORER	HIGH SCORER
Anxiety	Remains calm and unruffled even when confronted by unexpected occurrences. Takes things as they come without fear or apprehension. Maintains self control even in a crisis situation.	Easily scared. Little things, even an idea, can throw him into a frenzy of anxiety. Afraid of novelty and of the possibility of physical or interpersonal danger.
Thinking Disorder	Has no difficulty distinguishing his daydreams from reality. Is able to concentrate normally and to maintain sensible conversations.	Is markedly confused, distractable and disorganized. Cannot remember even simple things from day to day. Reports that he feels he is living in a dream-like world, that people appear different to him and that he feels different from them.
Impulse Expression	Appears to be even-tempered and level-headed; carefully considers the future before acting; generally has the patience to cope with a lengthy and tedious task.	Lacks ability to think beyond the present and to consider the consequences of his actions; is prone to undertake risky and reckless actions; inclined to behave irresponsibly; finds routine tasks boring.
Social Introversion	Enjoys company. Likes to talk and knows many people. Spends much of his time with others.	Avoids people generally. Has few friends and doesn't say much to those he has. Seems to be uncomfortable when around others. Prefers asocial activities.
Self Depreciation	Manifests a high degree of self-assurance in dealings with others. Not afraid to meet strangers; speaks with confidence about a variety of topics; believes in his own ability to accomplish things.	Degrades himself as being worthless, unpleasant, and undeserving. Generally expresses a low opinion of himself and refuses credit for any accomplishment.

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Table 3

Descriptive Statistics (N = 352)

BPI Data

Scale	Mean	SD	KR-20
Hypochondriasis	6.85	4.30	.81
Depression	8.24	5.21	.89
Denial	7.74	3.31	.67
Interpersonal Problems	8.61	3.71	.73
Alienation	5.55	3.54	.74
Persecutory Ideas	7.91	4.09	.78
Anxiety	9.17	4.52	.81
Thinking Disorder	5.54	3.87	.78
Impulse Expression	8.38	3.95	.75
Social Introversion	7.11	4.54	.83
Self Depreciation	5.58	4.60	.86

Symptom Data

Symptom	Presence Frequency	Absence Frequency
Hallucinations	112 (32%)	240 (68%)
Delusions	151 (43%)	201 (57%)
Mania	30 (9%)	322 (91%)
Depression	199 (57%)	153 (43%)
Anxiety	73 (21%)	279 (79%)
Somatic Complaints	27 (8%)	325 (92%)
Insomnia	50 (14%)	302 (86%)
Anorexia	18 (5%)	334 (95%)
Assaultive Behavior	79 (22%)	273 (78%)
Alcohol Abuse	132 (38%)	220 (62%)
Non-medical Drug Use	106 (30%)	246 (70%)
Suicidal Behavior	156 (44%)	196 (56%)

Table 4

Correlations of BPI Item Criterion Validity With Face Validity and Item Subtlety*

Scale	Face Validity	Item Subtlety
Hypochondriasis	.42	.05
Depression	.52	-.18
Denial	.12	-.48
Interpersonal Problems	-.14	.22
Alienation	.27	-.31
Persecutory Ideas	.36	-.08
Anxiety	.04	.02
Thinking Disorder	-.01	.16
Impulse Expression	-.02	.03
Social Introversion	.45	-.33
Self Depreciation	.51	-.36
ALL ITEMS	.33	-.30

*Correlations are based on an N of 20 items (220 for All Items)